

CLASSIFICATION: 07 33 00

PRODUCT DESCRIPTION: This HPD covers Synthetic palm leaves by Palmex International, both regular and fire-retardant. Palmex synthetic palm leaves are durable traditional-looking roofing materials that can effectively replace natural leaves. Synthetic palm leaves dimensions are 100 cm (39 in.) x 60 cm (24 in.). Each leaf is 0.7 mm thick and weighs 2.77 kg per m² of installed product. They are available with a fire-retardant option. Palmex's leaves are waterproof, certified for a wind-resistance up to 260 km/h (160 mph), as well as certified for UV and fade resistance. They provide full protection against moss, mould and mildew. Its weather resistance, waterproofness and sun protection are ensured both by the quality of the polyethylene used as well as by a unique and patented manufacturing and installation concept.

Section 1: Summary

Nested Method / Product Threshold

CONTENT INVENTORY

Inventory Reporting Format

- Nested Materials Method
 Basic Method

Threshold Disclosed Per

- Material
 Product

Threshold level

- 100 ppm
 1,000 ppm
 Per GHS SDS
 Per OSHA MSDS
 Other

Residuals/Impurities

Residuals/Impurities Considered in 4 of 4 Materials

- Explanation(s) provided for Residuals/Impurities?
 Yes No

Are All Substances Above the Threshold Indicated:

Characterized Yes No
Percent Weight and Role Provided?

Screened Yes No
Using Priority Hazard Lists with Results Disclosed?

Identified Yes No
Name and Identifier Provided?

CONTENT IN DESCENDING ORDER OF QUANTITY

Summary of product contents and results from screening individual chemical substances against HPD Priority Hazard Lists and the GreenScreen for Safer Chemicals®. The HPD does not assess whether using or handling this product will expose individuals to its chemical substances or any health risk. Refer to Section 2 for further details.

MATERIAL | SUBSTANCE | RESIDUAL OR IMPURITY
GREENSCREEN SCORE | HAZARD TYPE

HIGH DENSITY POLYETHYLENE [UNDISCLOSED LT-UNK] FIRE-RETARDANT #1 [UNDISCLOSED BM-1 | PBT | END UNDISCLOSED LT-UNK UNDISCLOSED BM-1 | CAN | AQU | MUL UNDISCLOSED LT-UNK UNDISCLOSED BM-1 | CAN UNDISCLOSED LT-UNK UNDISCLOSED LT-UNK | PBT] FIRE-RETARDANT #2 [DECABROMODIPHENYLETHANE (DBDPE) BM-1 | PBT | END 1-OCTENE, POLYMER WITH ETHENE LT-UNK ANTIMONY TRIOXIDE BM-1 | CAN | AQU | MUL] PIGMENTS AND UV PACKAGE [POLYETHYLENE LT-UNK TITANIUM DIOXIDE LT-1 | CAN | END BUTANEDIOIC ACID, 1,4-DIMETHYL ESTER, POLYMER WITH 4-HYDROXY-2,2,6,6-TETRAMETHYL-1-PIPERIDINEETHANOL LT-UNK LEAD SULFOCHROMATE YELLOW (C.I. PIGMENT YELLOW 34) LT-1 | DEL | CAN | REP | PBT | AQU | MUL | SKI | GEN POLY((6-((1,1,3,3-TETRAMETHYLBUTYL)AMINO)-1,3,5-TRIAZINE-2,4-DIYL)((2,2,6,6-TETRAMETHYL-4-PIPERIDINYL)IMINO)-1,6-HEXANEDIYL((2,2,6,6-TETRAMETHYL-4-PIPERIDINYL)IMINO)) NoGS ZINC STEARATE LT-UNK LEAD CHROMATE MOLYBDATE SULFATE RED LT-1 | DEL | CAN | REP | PBT | AQU | MUL | SKI | GEN 1,3,5-TRIAZINE-2,4,6(1H,3H,5H)-TRIONE,1,3,5-TRIS((4-(1,1-DIMETHYLETHYL)-3-HYDROXY-2,6-DIMETHYLPHENYL)METHYL)- LT-P1 | MUL CARBON BLACK LT-1 | CAN CALCIUM CARBONATE BM-3]

Number of Greenscreen BM-4/BM3 contents ... 1

Contents highest concern GreenScreen Benchmark or List translator Score ... BM-1

Nanomaterial ... No

INVENTORY AND SCREENING NOTES:

HPD prepared using a Nested Materials Inventory with a product threshold at 1,000 ppm. Palmex' synthetic palm leaves are essentially made of high density polyethylene. This HPD covers all types of Palmex' synthetic leaves: regular and fire-retardant leaves. Therefore, ranges translate a variation in composition. Palmex' supplier indicated the presence of black pigment (Carbon black - CAS# 1333-86-4) in the product composition, but it was not added to the content inventory due to its low concentration in the final leaf (below the 1,000 ppm threshold level). Fire-retardant synthetic leaves contain a total of 10% of pre-consumer recycled content which comes from reground cut leaf waste. The recycled content composition is therefore identical to the original composition of fire-retardant leaves. More details about how residuals and impurities were considered available in the appropriate sections.

VOLATILE ORGANIC COMPOUND (VOC) CONTENT

VOC Content data is not applicable for this product category.

CERTIFICATIONS AND COMPLIANCE See Section 3 for additional listings.

VOC emissions: CDPH Standard Method – Not applicable

Other: Fire Test - ASTM E108: Standard Methods for Fire Tests of Roof Coverings

Other: Fire Test - CSTB M: Standard Methods to reaction to fire of building

and furnishing products

Other: Wind resistance test - ASTM D 3161 -13: Standard Test Method for Wind-Resistance of Steep Slope Roofing Products

CONSISTENCY WITH OTHER PROGRAMS

Pre-checked for LEED v4 Material Ingredients, Option 1

Third Party Verified?

- Yes
- No

PREPARER: **Self-Prepared**

VERIFIER:

VERIFICATION #:

SCREENING DATE: **2018-08-22**

PUBLISHED DATE: **2018-11-23**

EXPIRY DATE: **2021-08-22**



Section 2: Content in Descending Order of Quantity

This section lists contents in a product based on specific threshold(s) and reports detailed health information including hazards. This HPD uses the inventory method indicated above, which is one of three possible methods:

- Basic Inventory method with Product-level threshold.
- Nested Material Inventory method with Product-level threshold
- Nested Material Inventory method with individual Material-level thresholds

Definitions and requirements for the three inventory methods and requirements for each data field can be found in the HPD Open Standard version 2.1, available on the HPDC website at: www.hpd-collaborative.org/hpd-2-1-standard

HIGH DENSITY POLYETHYLENE

#: 0.0000 - 100.0000

HPD URL:

PRODUCT THRESHOLD: 1000 ppm

RESIDUALS AND IMPURITIES CONSIDERED: Yes

RESIDUALS AND IMPURITIES NOTES: The supplier is not aware of potential residuals and impurities.

OTHER MATERIAL NOTES: Thermoplastic polymer matrix. HDPE used in the manufacturing of fire-retardant synthetic leaves contains pre-consumer recycled content. Regular synthetic leaves contain virgin materials. The exact weight percentage for this material has been withheld for the publication of this HPD but is bekownst to the HPD prepared. A high % range is provided instead to protect the industrial property of Palmex International regarding synthetic leaves recipe.

UNDISCLOSED

#: 99.0000 - 100.0000

GS: LT-UNK

RC: PreC

NANO: No

ROLE: Main component

HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES: See other material notes

FIRE-RETARDANT #1

#: 0.0000 - 65.0000

HPD URL:

PRODUCT THRESHOLD: 1000 ppm

RESIDUALS AND IMPURITIES CONSIDERED: Yes

RESIDUALS AND IMPURITIES NOTES: The manufacturer reported the presence of residuals below the disclosure threshold: arsenic (CAS # 7440-38-2) at 150 ppm and lead (CAS # 7439-92-1) at 75 ppm. Futhermone, additives below the reporting threshold are also present, but their chemical composition is unknown. The manufacturer declared no impurity above 1000 ppm.

OTHER MATERIAL NOTES: Alternate to Fire-retardant #2. Fire-retardant from an alternate supplier. Fire-retardant additives used in the manufacturing of fire-retardant synthetic leaves contains pre-consumer recycled content. Not present in regular leaves. The exact weight percentage for this material has been withheld for the publication of this HPD but is bekownst to the HPD prepared. A high % range is provided instead to protect the industrial property of Palmex International regarding synthetic leaves recipe.

UNDISCLOSED

#: 10.0000 - 50.0000

GS: BM-1

RC: PreC

NANO: No

ROLE: Additive

HAZARDS:

AGENCY(IES) WITH WARNINGS:

PBT	OSPAR - Priority PBTs & EDs & equivalent concern	PBT - Chemical for Priority Action
ENDOCRINE	OSPAR - Priority PBTs & EDs & equivalent concern	Endocrine Disruptor - Chemical for Priority Action
PBT	EHP - San Antonio Statement on BFRs & CFRs	Flame retardant substance class of concern for PB&T & long range transport

SUBSTANCE NOTES: See other material notes

UNDISCLOSED

#: **10.0000 - 50.0000** GS: **LT-UNK** RC: **PreC** NANO: **No** ROLE: **Polymer matrix**

HAZARDS: AGENCY(IES) WITH WARNINGS:

None Found No warnings found on HPD Priority lists

SUBSTANCE NOTES: See other material notes

UNDISCLOSED

#: **0.1000 - 20.0000** GS: **BM-1** RC: **PreC** NANO: **No** ROLE: **Additive**

HAZARDS: AGENCY(IES) WITH WARNINGS:

CANCER	IARC	Group 2b - Possibly carcinogenic to humans
CANCER	CA EPA - Prop 65	Carcinogen
CHRON AQUATIC	EU - GHS (H-Statements)	H411 - Toxic to aquatic life with long lasting effects
CANCER	EU - GHS (H-Statements)	H351 - Suspected of causing cancer
MULTIPLE	ChemSec - SIN List	CMR - Carcinogen, Mutagen &/or Reproductive Toxicant
CANCER	MAK	Carcinogen Group 2 - Considered to be carcinogenic for man
CANCER	Japan - GHS	Carcinogenicity - Category 1B

SUBSTANCE NOTES: See other material notes

UNDISCLOSED

#: **0.1000 - 20.0000** GS: **LT-UNK** RC: **PreC** NANO: **No** ROLE: **Additive**

HAZARDS: AGENCY(IES) WITH WARNINGS:

None Found No warnings found on HPD Priority lists

SUBSTANCE NOTES: See other material notes

UNDISCLOSED

%: **0.1000 - 20.0000** GS: **BM-1** RC: **PreC** NANO: **No** ROLE: **Filler**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

CANCER

MAK

Carcinogen Group 3B - Evidence of carcinogenic effects but not sufficient for classification

SUBSTANCE NOTES: See other material notes

UNDISCLOSED

%: **0.1000 - 20.0000** GS: **LT-UNK** RC: **PreC** NANO: **No** ROLE: **Additive**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES: See other material notes

UNDISCLOSED

%: **0.1000 - 20.0000** GS: **LT-UNK** RC: **PreC** NANO: **No** ROLE: **Additive**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

PBT

EU - ESIS PBT

Under PBT evaluation

SUBSTANCE NOTES: See other material notes

FIRE-RETARDANT #2

%: **0.0000 - 65.0000**

HPD URL:

PRODUCT THRESHOLD: **1000 ppm**

RESIDUALS AND IMPURITIES CONSIDERED: **Yes**

RESIDUALS AND IMPURITIES NOTES: **The manufacturer indicated that there were no residual substances or impurities above 1000 ppm.**

OTHER MATERIAL NOTES: **Alternate to Fire-retardant #1. Fire-retardant from an alternate supplier. Fire-retardant additives used in the manufacturing of fire-retardant synthetic leaves contains pre-consumer recycled content. Not present in regular leaves. The exact weight percentage for this material has been withheld for the publication of this HPD but is bekownst to the HPD prepared. A high % range is provided instead to protect the industrial property of Palmex International regarding synthetic leaves recipe.**

DECABROMODIPHENYLETHANE (DBDPE)

ID: **84852-53-9**

%: **45.0000** GS: **BM-1** RC: **PreC** NANO: **No** ROLE: **Flame retardant chemical**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

PBT	OSPAR - Priority PBTs & EDs & equivalent concern	PBT - Chemical for Priority Action
ENDOCRINE	OSPAR - Priority PBTs & EDs & equivalent concern	Endocrine Disruptor - Chemical for Priority Action
PBT	ChemSec - SIN List	PBT / vPvB (Persistent, Bioaccumulative, & Toxic / very Persistent & very Bioaccumulative)
PBT	EHP - San Antonio Statement on BFRs & CFRs	Flame retardant substance class of concern for PB&T & long range transport

SUBSTANCE NOTES: See other material notes

1-OCTENE, POLYMER WITH ETHENE

ID: 26221-73-8

#: 35.0000 GS: LT-UNK RC: PreC NANO: No ROLE: Polymer matrix

HAZARDS: AGENCY(IES) WITH WARNINGS:

None Found No warnings found on HPD Priority lists

SUBSTANCE NOTES: See other material notes

ANTIMONY TRIOXIDE

ID: 1309-64-4

#: 20.0000 GS: BM-1 RC: PreC NANO: No ROLE: Flame retardant chemical

HAZARDS: AGENCY(IES) WITH WARNINGS:

CANCER	IARC	Group 2b - Possibly carcinogenic to humans
CANCER	CA EPA - Prop 65	Carcinogen
CHRON AQUATIC	EU - GHS (H-Statements)	H411 - Toxic to aquatic life with long lasting effects
CANCER	EU - GHS (H-Statements)	H351 - Suspected of causing cancer
MULTIPLE	ChemSec - SIN List	CMR - Carcinogen, Mutagen &/or Reproductive Toxicant
CANCER	MAK	Carcinogen Group 2 - Considered to be carcinogenic for man
CANCER	Japan - GHS	Carcinogenicity - Category 1B

SUBSTANCE NOTES: See other material notes

PIGMENTS AND UV PACKAGE

#: 0.0000 - 65.0000

HPD URL:

PRODUCT THRESHOLD: 1000 ppm

RESIDUALS AND IMPURITIES CONSIDERED: Yes

RESIDUALS AND IMPURITIES NOTES: The manufacturer indicated that there were no residual substances or impurities above 1000 ppm.

OTHER MATERIAL NOTES: Average of three compositions of pigments and UV packages used in the product recipe. Pigments and UV package used in the manufacturing of fire-retardant synthetic leaves contains pre-consumer recycled content. Regular synthetic leaves contain virgin materials. The exact weight percentage for this material has been withheld for the publication of this HPD but is known to the HPD prepared. A high % range is provided instead to protect the industrial property of Palmex International regarding synthetic leaves recipe.

POLYETHYLENE

ID: 9002-88-4

%: **54.8000 - 59.1800** GS: **LT-UNK** RC: **PreC** NANO: **No** ROLE: **Polymer matrix**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES: See other material notes.

TITANIUM DIOXIDE

ID: 13463-67-7

%: **10.0000 - 21.5000** GS: **LT-1** RC: **PreC** NANO: **No** ROLE: **Pigment**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

CANCER

US CDC - Occupational Carcinogens

Occupational Carcinogen

CANCER

CA EPA - Prop 65

Carcinogen - specific to chemical form or exposure route

CANCER

IARC

Group 2B - Possibly carcinogenic to humans - inhaled from occupational sources

ENDOCRINE

TEDX - Potential Endocrine Disruptors

Potential Endocrine Disruptor

CANCER

MAK

Carcinogen Group 3A - Evidence of carcinogenic effects but not sufficient to establish MAK/BAT value

CANCER

MAK

Carcinogen Group 4 - Non-genotoxic carcinogen with low risk under MAK/BAT levels

SUBSTANCE NOTES: See other material notes.

BUTANEDIOIC ACID, 1,4-DIMETHYL ESTER, POLYMER WITH 4-HYDROXY-2,2,6,6-TETRAMETHYL-1-PIPERIDINEETHANOL

ID: 65447-77-0

%: **6.5000 - 6.5600** GS: **LT-UNK** RC: **PreC** NANO: **No** ROLE: **UV Stabilizer**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES: See other material notes.

LEAD SULFOCHROMATE YELLOW (C.I. PIGMENT YELLOW 34)

ID: 1344-37-2

%: **4.1500 - 9.0000** GS: **LT-1** RC: **PreC** NANO: **No** ROLE: **Pigment**

HAZARDS:	AGENCY(IES) WITH WARNINGS:	
DEVELOPMENTAL	G&L - Neurotoxic Chemicals	Developmental Neurotoxicant
CANCER	US EPA - IRIS Carcinogens	(1986) Group B2 - Probable human Carcinogen
CANCER	IARC	Group 1 - Agent is Carcinogenic to humans
CANCER	IARC	Group 2a - Agent is probably Carcinogenic to humans
CANCER	CA EPA - Prop 65	Carcinogen
DEVELOPMENTAL	CA EPA - Prop 65	Developmental toxicity
REPRODUCTIVE	CA EPA - Prop 65	Reproductive Toxicity - Female
REPRODUCTIVE	CA EPA - Prop 65	Reproductive Toxicity - Male
CANCER	US CDC - Occupational Carcinogens	Occupational Carcinogen
CANCER	US NIH - Report on Carcinogens	Reasonably Anticipated to be Human Carcinogen
PBT	US EPA - Toxics Release Inventory PBTs	PBT
CANCER	EU - SVHC Authorisation List	Carcinogenic - Candidate list
CANCER	EU - SVHC Authorisation List	Carcinogenic - Banned unless Authorised
REPRODUCTIVE	EU - SVHC Authorisation List	Toxic to reproduction - Banned unless Authorised
ACUTE AQUATIC	EU - GHS (H-Statements)	H400 - Very toxic to aquatic life
CHRON AQUATIC	EU - GHS (H-Statements)	H410 - Very toxic to aquatic life with long lasting effects
CANCER	EU - GHS (H-Statements)	H350 - May cause cancer
DEVELOPMENTAL	EU - GHS (H-Statements)	H360Df - May damage the unborn child. Suspected of damaging fertility
CANCER	EU - REACH Annex XVII CMRs	Carcinogen Category 2 - Substances which should be regarded as if they are Carcinogenic to man
REPRODUCTIVE	EU - REACH Annex XVII CMRs	Toxic to Reproduction Category 1 - Substances known to impair fertility or cause Developmental Toxicity in humans
MULTIPLE	ChemSec - SIN List	CMR - Carcinogen, Mutagen &/or Reproductive Toxicant
MULTIPLE	German FEA - Substances Hazardous to Waters	Class 3 - Severe Hazard to Waters
CANCER	MAK	Carcinogen Group 1 - Substances that cause cancer in man
CANCER	MAK	Carcinogen Group 2 - Considered to be carcinogenic for man
SKIN SENSITIZE	MAK	Sensitizing Substance Sh - Danger of skin sensitization
CANCER	Korea - GHS	Carcinogenicity - Category 1 [H350 - May cause cancer]
REPRODUCTIVE	Korea - GHS	Reproductive toxicity - Category 1 [H360 - May damage fertility or the unborn child]
CANCER	EU - Annex VI CMRs	Carcinogen Category 1B - Presumed Carcinogen based on animal evidence
CANCER	New Zealand - GHS	6.7A - Known or presumed human carcinogens
REPRODUCTIVE	New Zealand - GHS	6.8A - Known or presumed human reproductive or

developmental toxicants

CANCER	Japan - GHS	Carcinogenicity - Category 1B
REPRODUCTIVE	Japan - GHS	Toxic to reproduction - Category 1
GENE MUTATION	MAK	Germ Cell Mutagen 2
GENE MUTATION	MAK	Germ Cell Mutagen 3a
REPRODUCTIVE	EU - Annex VI CMRs	Reproductive Toxicity - Category 1A
CANCER	Australia - GHS	H350 - May cause cancer
DEVELOPMENTAL	Australia - GHS	H360Df - May damage the unborn child. Suspected of damaging fertility

SUBSTANCE NOTES: See other material notes.

POLY((6-((1,1,3,3-TETRAMETHYLBUTYL)AMINO)-1,3,5-TRIAZINE-2,4- DIYL)((2,2,6,6-TETRAMETHYL-4-PIPERIDINYL)IMINO)-1,6- HEXANEDIYL((2,2,6,6-TETRAMETHYL-4-PIPERIDINYL)IMINO))

ID: 71878-19-8

%: **3.5200 - 3.5700** GS: **NoGS** RC: **PreC** NANO: **No** ROLE: **Additive**

HAZARDS:	AGENCY(IES) WITH WARNINGS:
None Found	No warnings found on HPD Priority lists

SUBSTANCE NOTES: See other material notes.

ZINC STEARATE

ID: 557-05-1

%: **3.0000** GS: **LT-UNK** RC: **PreC** NANO: **No** ROLE: **Additive**

HAZARDS:	AGENCY(IES) WITH WARNINGS:
None Found	No warnings found on HPD Priority lists

SUBSTANCE NOTES: See other material notes.

LEAD CHROMATE MOLYBDATE SULFATE RED

ID: 12656-85-8

%: **1.0000 - 2.0000** GS: **LT-1** RC: **PreC** NANO: **No** ROLE: **Pigment**

HAZARDS:	AGENCY(IES) WITH WARNINGS:
DEVELOPMENTAL	G&L - Neurotoxic Chemicals Developmental Neurotoxicant
CANCER	US EPA - IRIS Carcinogens (1986) Group B2 - Probable human Carcinogen
CANCER	IARC Group 1 - Agent is Carcinogenic to humans
CANCER	IARC Group 2a - Agent is probably Carcinogenic to humans

CANCER	CA EPA - Prop 65	Carcinogen
DEVELOPMENTAL	CA EPA - Prop 65	Developmental toxicity
REPRODUCTIVE	CA EPA - Prop 65	Reproductive Toxicity - Female
REPRODUCTIVE	CA EPA - Prop 65	Reproductive Toxicity - Male
CANCER	US CDC - Occupational Carcinogens	Occupational Carcinogen
CANCER	US NIH - Report on Carcinogens	Reasonably Anticipated to be Human Carcinogen
PBT	US EPA - Toxics Release Inventory PBTs	PBT
CANCER	EU - SVHC Authorisation List	Carcinogenic - Banned unless Authorised
REPRODUCTIVE	EU - SVHC Authorisation List	Toxic to reproduction - Banned unless Authorised
ACUTE AQUATIC	EU - GHS (H-Statements)	H400 - Very toxic to aquatic life
CHRON AQUATIC	EU - GHS (H-Statements)	H410 - Very toxic to aquatic life with long lasting effects
CANCER	EU - GHS (H-Statements)	H350 - May cause cancer
DEVELOPMENTAL	EU - GHS (H-Statements)	H360Df - May damage the unborn child. Suspected of damaging fertility
CANCER	EU - REACH Annex XVII CMRs	Carcinogen Category 2 - Substances which should be regarded as if they are Carcinogenic to man
REPRODUCTIVE	EU - REACH Annex XVII CMRs	Toxic to Reproduction Category 1 - Substances known to impair fertility or cause Developmental Toxicity in humans
MULTIPLE	ChemSec - SIN List	CMR - Carcinogen, Mutagen &/or Reproductive Toxicant
MULTIPLE	German FEA - Substances Hazardous to Waters	Class 3 - Severe Hazard to Waters
CANCER	MAK	Carcinogen Group 1 - Substances that cause cancer in man
CANCER	MAK	Carcinogen Group 2 - Considered to be carcinogenic for man
SKIN SENSITIZE	MAK	Sensitizing Substance Sh - Danger of skin sensitization
CANCER	Korea - GHS	Carcinogenicity - Category 1 [H350 - May cause cancer]
REPRODUCTIVE	Korea - GHS	Reproductive toxicity - Category 1 [H360 - May damage fertility or the unborn child]
CANCER	EU - Annex VI CMRs	Carcinogen Category 1B - Presumed Carcinogen based on animal evidence
CANCER	New Zealand - GHS	6.7A - Known or presumed human carcinogens
REPRODUCTIVE	New Zealand - GHS	6.8A - Known or presumed human reproductive or developmental toxicants
CANCER	Japan - GHS	Carcinogenicity - Category 1A
REPRODUCTIVE	Japan - GHS	Toxic to reproduction - Category 1A
GENE MUTATION	MAK	Germ Cell Mutagen 2
GENE MUTATION	MAK	Germ Cell Mutagen 3a
REPRODUCTIVE	EU - Annex VI CMRs	Reproductive Toxicity - Category 1A

CANCER	Australia - GHS	H350 - May cause cancer
DEVELOPMENTAL	Australia - GHS	H360Df - May damage the unborn child. Suspected of damaging fertility

SUBSTANCE NOTES: See other material notes.

1,3,5-TRIAZINE-2,4,6(1H,3H,5H)-TRIONE,1,3,5-TRIS((4-(1,1-DIMETHYLETHYL)-3-HYDROXY-2,6-DIMETHYLPHENYL)METHYL)-

ID: 40601-76-1

%: 1.0000	GS: LT-P1	RC: PreC	NANO: No	ROLE: Antioxydant
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HAZARDS: AGENCY(IES) WITH WARNINGS:

MULTIPLE	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters
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SUBSTANCE NOTES: See other material notes.

CARBON BLACK

ID: 1333-86-4

%: 0.0900 - 0.1700	GS: LT-1	RC: PreC	NANO: No	ROLE: Pigment
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HAZARDS: AGENCY(IES) WITH WARNINGS:

CANCER	US CDC - Occupational Carcinogens	Occupational Carcinogen
CANCER	CA EPA - Prop 65	Carcinogen - specific to chemical form or exposure route
CANCER	IARC	Group 2B - Possibly carcinogenic to humans - inhaled from occupational sources
CANCER	MAK	Carcinogen Group 3B - Evidence of carcinogenic effects but not sufficient for classification

SUBSTANCE NOTES: See other material notes.

CALCIUM CARBONATE

ID: 471-34-1

%: 0.0000 - 10.0000	GS: BM-3	RC: PreC	NANO: No	ROLE: Additive
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HAZARDS: AGENCY(IES) WITH WARNINGS:

None Found	No warnings found on HPD Priority lists
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SUBSTANCE NOTES: See other material notes.

Section 3: Certifications and Compliance

This section lists applicable certification and standards compliance information for VOC emissions and VOC content. Other types of health or environmental performance testing or certifications completed for the product may be provided.

VOC EMISSIONS

CDPH Standard Method – Not applicable

CERTIFYING PARTY: **Self-declared**

ISSUE DATE: **2018-**

EXPIRY DATE:

CERTIFIER OR LAB: **None**

APPLICABLE FACILITIES: **All**

08-22

CERTIFICATE URL:

CERTIFICATION AND COMPLIANCE NOTES: **Exterior product**

OTHER

Fire Test - ASTM E108: Standard Methods for Fire Tests of Roof Coverings

CERTIFYING PARTY: **Third Party**

ISSUE DATE: **2013-**

EXPIRY DATE: **2018-**

CERTIFIER OR LAB: **INTERTEK**

APPLICABLE FACILITIES: **All**

11-22

11-22

CERTIFICATE URL:

CERTIFICATION AND COMPLIANCE NOTES:

OTHER

Fire Test - CSTB M: Standard Methods to reaction to fire of building and furnishing products

CERTIFYING PARTY: **Third Party**

ISSUE DATE: **2016-**

EXPIRY DATE: **2021-**

CERTIFIER OR LAB: **CSTB**

APPLICABLE FACILITIES: **All**

07-12

07-12

CERTIFICATE URL:

CERTIFICATION AND COMPLIANCE NOTES:

OTHER

Wind resistance test - ASTM D 3161 -13: Standard Test Method for Wind-Resistance of Steep Slope Roofing Products

CERTIFYING PARTY: **Third Party**

ISSUE DATE: **2014-**

EXPIRY DATE: **2019-**

CERTIFIER OR LAB: **PRI**

APPLICABLE FACILITIES: **All**

04-21

04-21

CONSTRUCTION MATERIALS

CERTIFICATE URL:

CERTIFICATION AND COMPLIANCE NOTES:

Section 4: Accessories

This section lists related products or materials that the manufacturer requires or recommends for installation (such as adhesives or fasteners), maintenance, cleaning, or operations. For information relating to the contents of these related products, refer to their applicable Health Product Declarations, if available.

No accessories are required for this product.

ACCESSORY

HPD URL: <http://www.palmex-international.com>

CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES:

Palmex roofing thatch product line includes patented accessories recommended to ensure a proper installation and for aesthetic reasons. They also provide an extra protection against water infiltration and high winds. www.palmex-international.com

Section 5: General Notes

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MANUFACTURER INFORMATION

MANUFACTURER: **Palmex International**
ADDRESS: **2518, chemin des Entreprises**
Saint-Sauveur Quebec J0R 1R7, Canada
WEBSITE: **www.palmex-international.com**

CONTACT NAME: **Pierre Fortier**
TITLE: **General Manager**
PHONE: **(514) 328-1253**
EMAIL: **pierre@palmex-international.com**

KEY

OSHA MSDS Occupational Safety and Health Administration Material Safety Data Sheet
GHS SDS Globally Harmonized System of Classification and Labeling of Chemicals Safety Data Sheet

Hazard Types

AQU Aquatic toxicity	GLO Global warming	PHY Physical Hazard (reactive)
CAN Cancer	MAM Mammalian/systemic/organ toxicity	REP Reproductive toxicity
DEV Developmental toxicity	MUL Multiple hazards	RES Respiratory sensitization
END Endocrine activity	NEU Neurotoxicity	SKI Skin sensitization/irritation/corrosivity
EYE Eye irritation/corrosivity	OZO Ozone depletion	LAN Land Toxicity
GEN Gene mutation	PBT Persistent Bioaccumulative Toxic	NF Not found on Priority Hazard Lists

GreenScreen (GS)

BM-4 Benchmark 4 (prefer-safer chemical)	LT-P1 List Translator Possible Benchmark 1
BM-3 Benchmark 3 (use but still opportunity for improvement)	LT-1 List Translator Likely Benchmark 1
BM-2 Benchmark 2 (use but search for safer substitutes)	LT-UNK List Translator Benchmark Unknown (insufficient information from List Translator lists to benchmark)
BM-1 Benchmark 1 (avoid - chemical of high concern)	NoGS Unknown (no data on List Translator Lists)
BM-U Benchmark Unspecified (insufficient data to benchmark)	

Recycled Types

PreC Preconsumer (Post-Industrial)
PostC Postconsumer
Both Both Preconsumer and Postconsumer
Unk Inclusion of recycled content is unknown
None Does not include recycled content

Other Terms

Inventory Methods:

Nested Method / Material Threshold Substances listed within each material per threshold indicated per material
Nested Method / Product Threshold Substances listed within each material per threshold indicated per product
Basic Method / Product Threshold Substances listed individually per threshold indicated per product

Nano Composed of nano scale particles or nanotechnology
Third Party Verified Verification by independent certifier approved by HPDC
Preparer Third party preparer, if not self-prepared by manufacturer
Applicable facilities Manufacturing sites to which testing applies

The Health Product Declaration (HPD) Open Standard provides for the disclosure of product contents and potential associated human and environmental health hazards. Hazard associations are based on the HPD Priority Hazard Lists, the GreenScreen List Translator™, and when available, full GreenScreen® assessments. The HPD Open Standard v2.1 is not:

- a method for the assessment of exposure or risk associated with product handling or use,
- a method for assessing potential health impacts of: (i) substances used or created during the manufacturing process or (ii) substances created after the product is delivered for end use.

Information about life cycle, exposure and/or risk assessments performed on the product may be reported by the manufacturer in appropriate Notes sections, and/or, where applicable, in the Certifications section.

The HPD Open Standard was created and is supported by the Health Product Declaration Collaborative (the HPD Collaborative), a customer-led organization composed of stakeholders throughout the building industry that is committed to the continuous improvement of building products through transparency, openness, and innovation throughout the product supply chain.

The product manufacturer and any applicable independent verifier are solely responsible for the accuracy of statements and claims made in this HPD and for compliance with the HPD standard noted.